14th Annual Steel Bridge Competition

- 10:30am, Saturday, December 10, 2016, Kirby Rec Center, 2nd Floor, Kamine Gym Court 3 (Roller-Hockey Floor). Overall Schedule:
  - Each team will build, have dimensional checks, and be weighed, in the following order:
    - Don’t Judge a Bridge by its Girder
    - First Degree Girder (Manslaughter)
    - Girder Done
    - Double Entendre
  The next build team will begin immediately after a previous team has finished (the bridges will be moved for load-testing and dimensional checks).
  - Each team will be load-tested, in the same order as the building. “A-side” and “B-side” will be determined by a coin flip.

- Dice Roll: in class, December 9th.

Rules and Rule Modifications

Read the construction rules and national clarifications (www.aisc.org/steelbridge)

Some obvious reminders:

- There is a river in the middle. You can’t cross it or stand in it.
- Construction must begin by either placing an abutment leg on the footing, temporary pier, or staging yard. Members that are added to this are considered “constructed portion.” The constructed portion must remain in contact with the footing, temporary pier, or staging yard, at all times.
- Outside the staging yard, no more than one member may be carried by a builder at one time.
- Don’t drop stuff or put anything on the ground outside of the footing. Penalties are involved.
- Don’t step in the river. The penalty is huge.
- Don’t let the bridge slide off of the footing.
- The national rules do not permit any battery-powered equipment.
- The national rules require that all bolts be tightened.

Rule Modifications - Professor Kurtz will be generous and loose with the following rules:

1. Battery powered equipment is not permitted in the rules, but CE311 will be allowed to use up to two impact wrenches per team. The senior national team, however, must stick with the national rules, tightening all bolts by hand.

2. CE311 bridges have been inspected and it is my opinion that they are all adequate with respect to the lateral load test. However, teams may not take advantage of this; all members must be installed and bolts must be tightened.

3. 10.2.4: Temporary piers: the national rules limit the size and weight of piers. However, the rollers that are commonly used in the shop will be permitted as temporary piers. Teams that wish to construct some other kind of temporary pier may receive a variance to allow them to use power tools if they speak with me first. However, please note that the most commonly used temporary pier in CE311 has typically been a 5-gallon bucket.
4. Rule 8.2.2.2: A member will not be considered in violation if the violation is not greater than 1/16"

5. The rules of section 9.3: a dimensional violation of less than 1/4" will not be penalized.

6. Bolts may be up to 3-1/2" inches long (3" is the limit, in the rules).
7. Sway will not be monitored during the vertical load test.
8. Hardhats are not required, but safety glasses are required.
   Teams with sharp bridges should probably consider wearing gloves.
   Friday: Practice, etc.
     o Do not hoard tools!! Wrenches, hammers, etc are community property. Put them back, when you are done.
     o 2pm: anyone who can help lug heavy stuff onto Coleman Strohm’s truck should lend a hand, please.
     o Sometime between 2pm and 4pm, a few representatives should be on hand as we load bridges onto either a truck or a stationwagon.
     o Kirby will be available for practice, after 4pm, and for as long as the gym is open. BE RESPECTFUL of the room. Keep it clean. DO NOT APPLY LUBRICANT ANYWHERE AT KIRBY UNLESS IT IS CONTAINED (For example, apply it over your box). Put everything back in your box when you are done. Protect the floor with ¼” plywood wherever your bridge abutments touch the floor.